

**CLAIMS:**

1. A method of simulating the activities of a plurality of creatures, the method comprising utilising at least two  
5 modes of simulation:  
a first mode arranged to simulate the activities of all of said creatures; and  
a second mode arranged to simulate the activity of at least one of said creatures at a more detailed level than  
10 said first mode.
2. A method as claimed in claim 1, wherein said second mode of simulation is utilised when it is detected that one or more of said creatures simulated by said first mode  
15 is undergoing a change in environment, the second mode being utilised to simulate the activity of the creatures undergoing the change in environment.
3. A method as claimed in claim 2, wherein said change in  
20 environment comprises a creature undergoing at least one of: fighting; mating; eating; interacting with another creature; reproducing; sensing another creature; encountering another creature; moving to a new terrain type; altering the environment.
- 25 4. A method as claimed in claim 1, wherein the second mode is invoked at the start of the simulation so as to determine the starting parameters of each creature.
- 30 5. A method as claimed in claim 1, wherein said second mode is utilised to determine at least one parameter affecting the activity of the simulated creature, said

parameter being subsequently utilised by the first mode of simulation.

6. A method as claimed in claim 1, wherein when the  
5 method changes from utilising the second mode to the first mode, at least one parameter relating to said creature simulated by the second mode is stored for use by a later iteration of the second mode.

10 7. A method as claimed in claim 4, wherein said parameter comprises at least one of creature mass; creature energy; creature strength; creature behaviour transition probabilities; creature biochemical levels; creature movement parameters; creature speed; creature rate of  
15 turn.

8. A method as claimed in claim 5, wherein said parameter comprises at least one of creature mass; creature energy; creature strength; creature behaviour transition  
20 probabilities; creature biochemical levels; creature movement parameters; creature speed; creature rate of turn.

9. A method as claimed in claim 6, wherein said parameter  
25 comprises at least one of creature mass; creature energy; creature strength; creature behaviour transition probabilities; creature biochemical levels; creature movement parameters; creature speed; creature rate of turn.

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10. A recordable medium having recorded thereon computer readable code, wherein the computer readable code is adapted to simulate the activities of a plurality of

creatures by utilising at least two modes of simulation, a first mode arranged to simulate the activities of all of said creatures, and a second mode arranged to simulate the activity of at least one of said creatures at a more  
5 detailed level than said first mode.

11. A simulator device arranged to simulate the activities of a plurality of creatures, the device being arranged to utilise at least two modes of simulation:  
10 a first mode arranged to simulate the activities of all of said creatures; and  
a second mode arranged to simulate the activity of at least one said creatures at a more detailed level than said first mode.

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